

REMARKS

Claims 1-4 and 7-24 are pending in the current application. Claims 1, 13, 22, and 23 are amended by this amendment. Claims 5 and 6 are canceled by this amendment. No claims are added by this amendment.

Claim Rejections under 35 U.S.C. § 103

Claims 1, 7, and 12-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park et al. (U.S. Pub. No. 2002/0136449, herein Park) in view of Howard et al. (U.S. Pub. No. 2003/0063093, herein Howard). Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Howard in further view of Murao (U.S. Pat. No. 6,728,406, herein Murao). Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Murao. Claims 8-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Howard. Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Howard in further view of Kambayashi (U.S. Pat. No. 4,841,289, herein Kambayashi). Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Howard in further view of Murao and Lee (U.S. Pat. No. 6,828,982, herein Lee). Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Howard in further view of Sasaki (U.S. Pat. No. 6,967,660, herein Sasaki). Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Howard in further view of Sasaki and Jeong (U.S. Pat. No. 5,235,650, herein Jeong). Claims 17-21, 22 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Howards in further view of Kamei (U.S. Pub. No. 2001/0046309, herein Kamei). Applicant respectfully traverses the rejections.

The Examiner uses Sasaki to teach a noise removal section for removing noise.¹ However, the Examiner admits that neither Park nor Sasaki teaches a noise removal section comprising a shift register section. Instead, the Examiner relies upon Jeong as teaching this feature. The Examiner asserts that “Jeong teaches determining [whether] or not a predetermined number or more of a plurality of results of the shift register section are equal to one another to determine whether or not the plurality of results are noise.”²

Jeong discloses “each pixel value supplied to a 5x5 shift register 102 is supplied as 25 bit parallel data to a noise eliminating circuit 105 through a multiplexer 104. [i]f the 25 bit parallel data correspond to a pattern of a noise eliminating mask shown in FIG. 6A, the character image corresponding to a central pixel C of the 5x5 shift register 102 is changed from “1” to “0” in the binary image processor and memory 101 so as to remove noise components.”³ Therefore, Jeong requires matching of the results of the shift register (corresponding to each pixel) to a pattern of a noise eliminating mask as shown in FIG. 6A.

However, claim 1 requires “determining whether or not a predetermined number or more of a plurality of results of the shift register section are equal to one another,” not equal to a pattern of a noise eliminating mask, “to determine whether or not the plurality of results are noise.” In particular, claim 1 requires determining “if the majority of the shift register units have the same result for the pixel.” If the majority of the shift register units have the same result for the pixel, “the pixel is determined to be part of an object to be extracted and not noise” as required by claim 1.

Therefore, Applicant respectfully submits that Jeong teaches a different means of noise determination than claim 1, in particular, Jeong does not teach at least “a noise removal

¹ Current Office Action at Pg. 12-13.

² Current Office Action at Pg. 13.

³ See Jeong at FIGS. 4 and 6A; and at Col. 5, Ll. 59-67.

determination section for determining whether or not a predetermined number or more of a plurality of results of the shift register section are equal to one another to determine whether or not the plurality of results are noise” and/or “if the majority of shift register units have the same result for the pixel, the pixel is determined to be part of an object to be extracted and not noise” as required by claim 1.

Applicant respectfully submits Park, Howard, Murao, Kambayashi, Lee, Sasaki, and Kamei fail to cure the deficiencies of Jeong described above. Applicant respectfully submits claims 13, 22, and 23 are amended in a similar manner as claim 1 and are therefore patentable for at least the same reasons discussed above in regards to claim 1 as well as on their own merits. Further, Applicant respectfully submits claims 2-4, 7-12, 14-21, and 24, which depend from one of claims 1, 13, 22, and 23, are patentable for at least the reasons discussed above in regards to claims 1, 13, 22, and 23 as well as on their own merits.

In view of the above, Applicant respectfully requests the rejections under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-4 and 7-24 in connection with the present application is earnestly solicited.

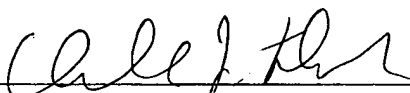
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By


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